

REMARKS

Claims 1-23 are pending in the present application. Claims 3 and 15 have been amended.

Claim rejection under 35 U.S.C. §112

The Examiner rejected claims 3 and 15 as being indefinite for lack of antecedent basis. Applicant amended those claims to recite “a radar chirp” instead of “the radar chirp.”

Claim rejection under 35 U.S.C. §112

The Examiner rejected claims 1-23 as being unpatentable over the Zachman in view of either Zupanick or Lion. Applicant respectfully disagrees. The present independent claims include limitations neither disclosed nor suggested by any of these references.

According to the present independent claims, a radar signal is sent out and the reflections are received. The frequency spectra of the reflected signal is then evaluated. These spectra are then analyzed and peaks within the spectra are determined. Furthermore, the **width of a peak** is used to determine the length of the measured object.

Zachman on the contrary, neither discloses nor suggests to use a spectral analysis let alone determining the width of a peak within such a spectrum. Moreover, claim 1 includes the additional limitation that the signal is emitted from a vehicle. This is not possible with an arrangement as disclosed in Zachman because the radar signal must be emitted from above the vehicle.

The Examiner further stated that either Lion or Zupanick disclose the determination of the length of an object. However, Applicant is not merely claiming to determine the length of an object by radar signals. As stated above, a very specific method is used to determine the length of an object. Namely, first a spectrum analysis is performed and then, the width of reflection peaks contained in the frequency spectrum is determined and used to calculate the length of the object.

Zupanick does neither disclose nor suggest to perform a spectral analysis. On the contrary, all calculations are performed in the time domain. In particular, Fig. 3 and Fig. 7 clearly show an evaluation of time. Furthermore, again with respect to claim 1 of the present invention, Zupanick requires radar signals to be emitted from above a vehicle. Thus, no emission from a vehicle would be possible.

Lion proposes to use a frequency analysis. However, Lion does neither disclose nor suggest to determine the width of reflection peaks within a spectrum. On the contrary, Lion proposes to eliminate such information by filtering the spectrum and generating a smooth curve as shown in Fig. 5b. Moreover, Lion proposes to determine the length of a vehicle by means of the equation disclosed in column 5, line 15. As can be seen clearly, merely the speed of a vehicle, a measured timing variable and known radar parameters are used to determine the length of an object. However, nowhere in Lion is anything mentioned or suggested to use the width of reflection peaks in a analyzed spectra to determine the length of an object.

Thus, Applicant believes that none of the cited prior art references even if combined render the present independent claims obvious. For this reason, Applicant believes that claims 1 and 13 are allowable. The dependent claims include all the limitations of the independent claims and are therefore also allowable at least to the extent of the independent claims.

CONCLUSION


The application as defined in the pending claims is patentable under 35 U.S.C. §112 and §103 in view of the cited prior art. Therefore, applicants respectfully request withdrawal of the rejection and allowance of all pending claims.

Applicants do not believe that any other fees are due at this time; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to this document, the Commissioner is authorized to deduct the fees from Deposit Account No. 02-0383, (*formerly Baker & Botts, L.L.P.*) Order Number 070255.0631.

Respectfully submitted:

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